Supplemental digital content 5.

International Classification of Diseases (ICD) versions 9-CM and 10-CA code definitions for postoperative respiratory complications.

Complication	Codes included in the definition*
Adult respiratory distress syndrome	518.5; J80 518.81; 518.82; 518.84; 786.09; 799.1; J95.1; J95.2; J96.0; J96.9;
Respiratory failure	R09.2
Bacterial pneumonia	481; 482.x; 483.x; 485; 486; J13; J14; J15.x; J16.8; J18.x; J85.x
Aspiration pneumonia	507.0; 668.0x; J69.0; J69.8; O29.0x; O74.0x; O89.0x
*x indicates root and all subcateg	ories are included in the definition. Hospital discharge

*.x indicates root and all subcategories are included in the definition. Hospital discharge abstracts were recorded in ICD9-CM until March 31, 2004 and subsequently in ICD10-CA. All ICD digits and up to 25 diagnoses are coded in hospital discharge abstracts. Codes are based on references ¹⁻³.

International Classification of Diseases (ICD) versions 9-CM and 10-CA code definitions for postoperative cardiovascular complications.

Complication	Codes included in the definition * 427.1; 427.41; 427.42; 427.5; 668.1x; 997.1; I46.0; I47.2; I49.0x;
Cardiac arrest and shock	O29.1xx; O74.2xx; O89.1xx; T81.1; T88.2
Acute coronary syndrome	410.xx; 411.1; 411.89; I20.0; I21.x; I22.x
Atrial fibrillation and flutter	427.31; 427.32; I48.0; I48.1 433.x1; 434.x1; 997.02; I63.x; I64; 435.x; 437.1; V12.54; 997.01;
Cerebral vascular accident	I67.8; 438.x; I69.x; G45.x

*.x and .xx indicate root and all subcategories are included in the definition. Hospital discharge abstracts were recorded in ICD9-CM until March 31, 2004 and subsequently in ICD10-CA. All ICD digits and up to 25 diagnoses are coded in hospital discharge abstracts. Codes are based on references ⁴⁻⁸

References

- 1. Pickard AS, Jung E, Bartle B, Weiss KB, Lee TA: Coded cause of death and timing of COPD diagnosis. COPD 2009; 6: 41-7
- 2. Wu CL, Sapirstein A, Herbert R, Rowlingson AJ, Michaels RK, Petrovic MA, Fleisher LA: Effect of postoperative epidural analgesia on morbidity and mortality after lung resection in Medicare patients. J Clin Anesth 2006; 18: 515-20
- 3. Riley G, Lubitz J, Gornick M, Mentnech R, Eggers P, McBean M: Medicare beneficiaries: adverse outcomes after hospitalization for eight procedures. Med Care 1993; 31: 921-49
- 4. Chung CP, Murray KT, Stein CM, Hall K, Ray WA: A computer case definition for sudden cardiac death. Pharmacoepidemiol Drug Saf 2010; 19: 563-72
- 5. Varas-Lorenzo C, Castellsague J, Stang MR, Tomas L, Aguado J, Perez-Gutthann S: Positive predictive value of ICD-9 codes 410 and 411 in the identification of cases of acute coronary syndromes in the Saskatchewan Hospital automated database. Pharmacoepidemiol Drug Saf 2008; 17: 842-5

- 6. Birman-Deych E, Waterman AD, Yan Y, Nilasena DS, Radford MJ, Gage BF: Accuracy of ICD-9-CM codes for identifying cardiovascular and stroke risk factors. Med Care 2005; 43: 480-5
- 7. Lix L, Yogendran M, Burchill C, Metge C, McKeen N, Moore D, and Bond R: Defining and Validating Chronic Diseases: An Administrative Data Approach. 2006
- 8. Quan H, Sundararajan V, Halfon P, Fong A, Burnand B, Luthi JC, Saunders LD, Beck CA, Feasby TE, Ghali WA: Coding algorithms for defining comorbidities in ICD-9-CM and ICD-10 administrative data. Med Care 2005; 43: 1130-9